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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/047,252	03/24/1998	PASCAL MELLOTT	S1022/8047	3048
7590	07/08/2005		EXAMINER	
JAMES H MORRIS WOLF GREENFIELD & SACKS 600 ATLANTIC AVENUE BOSTON, MA 02210			PENDLETON, BRIAN T	
			ART UNIT	PAPER NUMBER
			2644	

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/047,252	MELLOTT, PASCAL	
	Examiner	Art Unit	
	Brian T. Pendleton	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 16 March 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,3-17 and 19-21 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1,3-17 and 19-21 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 24 March 1999 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang in view of Gore. Yang discloses an apparatus comprising first circuitry 10 for receiving a broadcast signal, attenuator 500, and second circuitry 20 for attenuating or amplifying the audio signal based on a volume control signal. While Yang discloses a feedforward circuit for the generating the control signal which controls the attenuator 500, Yang does not disclose feedback circuitry for generating the control signal. Gore discloses feedback circuitry 100 in figure 9 comprising rectifier 102 for determining a root mean square value of the audio signal and comparator 106 for comparing the root mean square value of the audio signal to one reference signal, the feedback circuitry generating a control signal for attenuator 2. It would have been obvious to one of ordinary skill in the art at the time of invention to substitute the feedback circuitry of Gore in the apparatus of Yang for the purpose of providing a mild limiting function which is advantageous for television audio/visual signals. Claims 1, 3 and 17 are met.

Claims 4-9, 11-16 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang in view of Gore, as applied to claims 1, 3, and 17 above, and further in view of Fuller. The combination of Yang and Gore does not disclose that the circuitry is implemented in digital

circuitry with one or more digital signal processing algorithms. However, Examiner takes Official Notice that the use and benefits of digital hardware and software algorithms were well known and it would have been obvious to one of ordinary skill in the art at the time of invention to use such elements in the case of the combination of Yang and Gore for the purpose of improving the accuracy and speed of the automatic gain control. Claims 4-6 are met. As to claim 7-9, Gore does not disclose that the comparator is an integrating comparator. Fuller discloses a sound leveling system comprising input signals L, R, gain control 206, signal AC-to-DC converter 208, and threshold integrator 210 for sending a control signal to gain control 206. The threshold integrator uses an integrating comparator, specifically a current sourcing/sinking comparator. It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teachings of Fuller and include an integrating comparator in the combination of Yang and Gore for the purpose of establishing a time period for the comparison step in gain control which can be set appropriately for different audio systems. Regarding claims 11-16 and 19-21, it was also obvious to use such an attenuating system to any system have audio signals with varying volume such as television, radio, and satellite systems.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yang in view of Gore and further in view of Fuller, as applied to claim 7 above, and further in view of Dasilva. The combination of Yang, Gore, and Fuller does not disclose a multiplying D/A converter in the attenuator circuit. Dasilva discloses a switched resistive control circuit (multiplying D/A converter). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the circuit of Dasilva in the modified invention of Yang, Gore, and Fuller. As

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stated in the abstract, the use of the signal attenuator of Dasilva provides selectable levels of signal attenuation, which would allow more flexibility, a desirable feature.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Pendleton whose telephone number is (571) 272-7527. The examiner can normally be reached on M-F 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian T. Pendleton
Examiner
Art Unit 2644

btp

Brian T. Pendleton